



**CERTIFIED ENVIRONMENTAL TECHNOLOGY
TECHNOLOGY TRANSFER ADVISORY**

**CEM Corporation
Microwave-Accelerated Reaction System Model MARS-X**

Issued To:

CEM Corporation
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Certification No:

01-01-035

Effective Date:

January 15, 2001

Expiration Date:

January 15, 2004

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Technology Description:

The CEM Model MARS-X is certified as a laboratory technology for the extraction of a wide range of semivolatile organic materials from solid matrices. These include the extraction of polynuclear aromatic hydrocarbons, acid, base, and neutral compounds, polychlorinated biphenyls, organophosphorous and organochlorine pesticides, and petroleum hydrocarbons in soil, sediment, and sludge. The Microwave Accelerated Reaction System is a closed-vessel heating system. With a Carboflon® heating insert, the system can also be used for microwave- assisted processes requiring nonpolar solvents without using a co-solvent system. The combined effect of high temperature and rapid heating of the extraction solvent significantly increases the extraction efficiency and reduces the extraction time. The MARS-X can process up to 14 samples simultaneously, with typical extraction times of 15 to 20 minutes and solvent volumes of 25 to 30 mL.

A copy of the published Certification Statement may be obtained by contacting the Department of Toxic Substances Control at (916) 322-3670 or on the Internet at http://www.dtsc.ca.gov/ScienceTechnology/TechCert_index.html.